

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Safety and Enforcement Division  
Rail Crossings and Engineering Branch  
Rail Crossings Safety Section

RESOLUTION SX-117  
Date: September 17, 2015

**RESOLUTION**

RESOLUTION SX-117 GRANTING AUTHORITY TO EXPOSITION METRO LINE CONSTRUCTION AUTHORITY, ON BEHALF OF LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY, TO DEVIATE FROM THE PROVISIONS OF SECTION 9.5 OF GENERAL ORDER 75-D BY MODIFYING THE AUDIBLE COMPONENT OF THE GRADE CROSSING WARNING DEVICES AT THE 20<sup>TH</sup> STREET, MILITARY AVENUE, WESTWOOD BOULEVARD, OVERLAND AVENUE, AND BAGLEY AVENUE AT-GRADE HIGHWAY-RAIL CROSSINGS OF THE EXPOSITION CORRIDOR LIGHT RAIL LINE IN THE CITIES OF LOS ANGELES AND SANTA MONICA, LOS ANGELES COUNTY.

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**SUMMARY**

By letter dated June 5, 2015, and pursuant to Section 13.1 of California Public Utilities Commission General Order 75-D, The Exposition Metro Line Construction Authority, on behalf of the Los Angeles County Metropolitan Transportation Authority, requests authority to deviate from Section 9.5 of General Order 75-D, which requires railroad crossing warning devices to sound bells during operation. The Exposition Metro Line Construction Authority proposes to shorten the bells sounding duration by silencing them when the warning device gate arms are in the horizontal position. The crossing device warning lights will continue to function throughout the entire warning operating cycle; however, the bells will silence once the gates are fully deployed and in horizontal position.

The exemptions will apply at five crossings along Exposition Corridor Light Rail Line Transit Project-Phase 2 alignment. The Exposition Metro Line Construction Authority is requesting an exemption at the following at-grade highway-rail crossings:

1. 20<sup>th</sup> Street, in City of Santa Monica
2. Military Avenue, in City of Los Angeles
3. Westwood Boulevard, in City of Los Angeles
4. Overland Avenue, in City of Los Angeles
5. Bagley Avenue, in City of Los Angeles

## **BACKGROUND**

The Exposition Corridor Light Rail Transit Project-Phase 2 (Expo Phase 2) extends approximately 6.7 miles from the terminus of Phase 1, at the Venice/Robertson/Washington aerial station in Culver City, to downtown City of Santa Monica. The Expo Phase 2 consists of 27 crossings. Eleven of the crossings are grade-separated, while the remaining 16 are at-grade crossings. Nine of the at-grade crossings are located on semi-exclusive right-of-way and are equipped with standard highway-rail crossing warning devices that include flashing light signals, four-quadrant gates, pedestrian gates, swing gates, fencing to channelize pedestrians, and bells. The remaining 7 at-grade crossings are located along a street-running alignment on Colorado Avenue in downtown Santa Monica, and are controlled by traffic signals, dedicated train signals, and active “TRAIN” light emitting diode warning signs. Since light rail vehicles (LRV), motor vehicles, bicycles and pedestrians are controlled by traffic signal systems along the street-running portion of the system, crossing bells are neither required nor necessary.

The Exposition Metro Line Construction Authority (Expo Authority) requests the exemption at five at-grade crossings along the semi-exclusive right-of-way alignment, to mitigate the noise to adjacent residential neighborhoods. Single and multi-family residential areas are located in close proximity of the five at-grade crossings.

Los Angeles County Metropolitan Transportation Authority (Metro) plans to operate LRV service 7 days a week, with LRVs ultimately operating on 5-minute headways during peak periods. Metro service currently begins at 4:00 AM and ends at 2:00 AM daily with extended hours on weekends.

**DISCUSSION**

Community concerns regarding noise from the sounding of bells and other audible warning devices at grade crossings is not new. The issue has been previously addressed by the California Public Utilities Commission (Commission) and several light rail agencies. The development and expansion of light rail transit systems has increased these concerns and the Commission's Safety and Enforcement Division (SED) Rail Crossings and Engineering Branch (RCEB) is working with California's light rail transit agencies to address the concerns without degrading safety at grade crossings.

Section 9.5 of Commission General Order (GO) 75-D states:

"Audible Warning Devices. Bells or other audible warning devices shall be included in all automatic warning device assemblies (except as provided in Section 10) and shall be operated in conjunction with the flashing light signals. See American Railway Engineering and Maintenance of Way Association's *Communications and Signals Manual of Recommended Practice* for reference."

The modification of the automatic crossing warning devices will allow the bells to sound when triggered by the approaching LRV, while the gate arm is moving from the vertical to the horizontal position. The bells will stop sounding once the gate arm reaches horizontal position. At this point, the absence of an audible alert from the crossing warning devices will be mitigated by the sounding of the LRV's onboard audible warning in accordance with Commission GO 143-B Sections 3.04 and 7.09 and Metro's established rules and procedures.

Expo Authority's request for this exemption is in accordance with guidelines found in industry standards promulgated by the Federal Highway Administration (FHWA) and the American Railway Engineering and Maintenance of Way Association (AREMA), and therefore consistent with the provisions of Section 9.5 of GO 75-D referencing that standard.

FHWA's Railroad-Highway Grade Crossing Handbook: Chapter IV(I) (9), page 110, states in part "When gates are used, the bell may be silenced when the gate arms descend to within 10 degrees of the horizontal position. Silencing the bell when the train reaches the crossing or when the gates are down may be desired to accommodate residents of suburban areas."

Part 3.1.15(E)(10) of the AREMA Communications and Signals Manual of Recommended Practices states: "Pedestrian bell or other audible warning device shall sound for the duration of the warning system activation, except when gates are being raised, unless otherwise determined by the Diagnostic Team or ordered by a public agency."

Commission granted Metro deviations from the bell silencing requirement in the past for a number of their Pasadena Gold Line and Expo Phase 1 crossings. Expo Authority and Metro believe that the exemption sought at the five crossings, for silencing the bells when the gates reach the horizontal positions, is a practical and reasonable approach for mitigating noise in the communities, and that safety will not be compromised if the exemption is granted.

RCEB has reviewed and analyzed Expo Authority's request. RCEB recommends that the requested exemption from the requirements of Commission GO 75-D, Section 9.5 be granted. RCEB will coordinate with Expo Authority and witness testing of the modified audible warning systems.

## **NOTICE**

On August 11, 2015, the Expo Authority request was published in the Commission's Daily Calendar.

## **COMMENTS**

The draft Resolution of the Commission's SED RCEB in this matter was mailed in accordance with Section 311 of the Public Utilities Code and Rule 14.2 (c) of the Commission's Rules of Practice and Procedure. No comments were received.

## **FINDINGS**

1. Expo Authority requests authority for a deviation from the requirements of Commission GO 75-D Section 9.5 to silence the crossing warning device bells after the gate arms reach horizontal position, at the five crossings of the Expo Phase 2 at 20<sup>th</sup> Street (CPUC No. 084S-112.80), Military Avenue (CPUC No. 084S-110.10), Westwood Boulevard (CPUC No. 084S-109.80), Overland Avenue (CPUC No. 084S-109.50), and Bagley Avenue (CPUC No. 084S-107.90) in the Cities of Los Angeles and Santa Monica, Los Angeles County.

2. Expo Authority's request for this exemption is in accordance with guidelines found in industry standards promulgated by AREMA, and therefore consistent with the provisions of Section 9.5 of GO 75-D referencing that standard.
3. Commission staff has reviewed Expo Authority's proposal and finds that the request is a practical and reasonable approach for mitigating noise in the communities and safety will not be compromised.
4. Commission staff will coordinate with Expo Authority to witness testing of the modified audible warning systems.
5. Commission staff recommends that this resolution be adopted.

**THEREFORE, IT IS ORDERED THAT:**

1. Exposition Metro Line Construction Authority, on behalf of the Los Angeles County Metropolitan Transportation Authority, is granted authorized to deviate from Section 9.5 of General Order 75-D, by shortening the bell sound duration on its warning devices, by silencing the bells when the gate arms reach horizontal position, at five at-grade highway-rail crossings. The crossings are: 20th Street, identified as CPUC No. 084S-112.80; Military Avenue, identified as CPUC No. 084S-110.10; Westwood Boulevard, identified as CPUC No. 084S-109.80; Overland Avenue, identified as CPUC No. 084S-109.50; and Bagley Avenue, identified as CPUC No. 084S-107.90 in the Cities of Los Angeles and Santa Monica, Los Angeles County.

The following requirements shall apply to the modification of the crossing warning devices at 20th Street, Military Avenue, Westwood Boulevard, Overland Avenue, and Bagley Avenue:

2. The automatic crossing warning devices shall continue to operate for a minimum of 20 seconds prior to the light rail vehicle reaching the crossing, and gate arms must be in the fully down (horizontal) position prior to the light rail vehicle arrival at the crossing.
3. The crossing warning device bells shall continue to sound until the gate arms reach the horizontal position.

4. Exposition Metro Line Construction Authority shall notify the City of Los Angeles and the California Public Utilities Commission's Rail Crossings and Engineering Branch when the modifications to the crossing warning devices are completed.
5. Exposition Metro Line Construction Authority shall coordinate with Rail Crossings and Engineering Branch for the testing of the audible warning devices. Rail Crossings and Engineering Branch shall witness testing and compliance with applicable California Public Utilities Commission requirements and this order.
6. The California Public Utilities Commission's Safety and Enforcement Division is delegated the power to rescind the authority granted by this resolution under the following conditions:
  - a) If Los Angeles County Metropolitan Transportation Authority modifies the number, type, and functionality of the California Public Utilities Commission standard warning devices at the crossings without prior California Public Utilities Commission approval.
  - b) If the light rail vehicle operators do not sound an audible warning device when approaching the crossing, as required by Section 7.09 of General Order 143-B.
  - c) The California Public Utilities Commission's Safety and Enforcement Division is authorized to temporarily suspend the authority granted by this resolution subsequent to any collision, or near collision, while Safety and Enforcement Division is investigating whether a causal link exists, pending the findings of that investigation, if Safety and Enforcement Division suspects that light rail vehicle involved collisions, or near collisions, at the crossing may have been caused by any of the authority granted by this resolution.
  - d) If Safety and enforcement Division determines that light rail vehicles involved in collisions, or near collisions, at the crossing have been caused by any of the authority granted by this resolution, the Safety and enforcement Division Director is authorized to suspend the authority granted by this resolution.

This resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed, and adopted by the California Public Utilities Commission at its regularly scheduled meeting on September 17, 2015. The following Commissioners voted favorably thereon:

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TIMOTHY J. SULLIVAN  
Executive Director